

REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 2, 4, 26, 27, 28, 29, 30, and 31 have been amended, and claims 1 and 9 have been cancelled without prejudice or disclaimer. No new matter is being presented, and approval and entry are respectfully requested.

Claims 2-8 and 10-31 are pending and under consideration. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §112, FIRST PARAGRAPH:

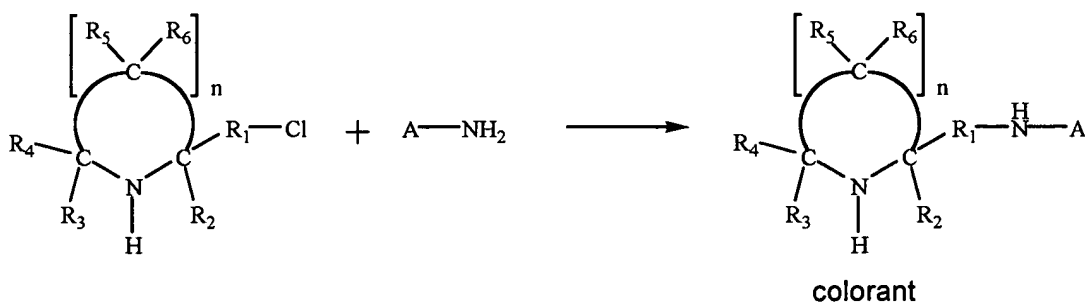
In the Office Action, at pages 3-4, numbered paragraph 5, claims 1-25 were rejected under 35 U.S.C. §112, first paragraph, for the reasons set forth therein. This rejection is traversed and reconsideration is requested.

The Examiner submits that it is not clear whether all known common colorants in the art are dyes or pigments and furthermore, do all of them have amino groups, hydroxyl groups, carboxyl groups, or sulfonic acid groups.

It is respectfully submitted that paragraphs [0019] and [0020] (set forth below for the Examiner's convenience) of the specification recite that common colorants that have an amino, a carboxyl, a hydroxyl or an amine group present in a molecule of the dye or the pigment are utilized. That is, there are common colorants not having the recited groups, but only common colorants having the recited groups are utilized in the present invention.

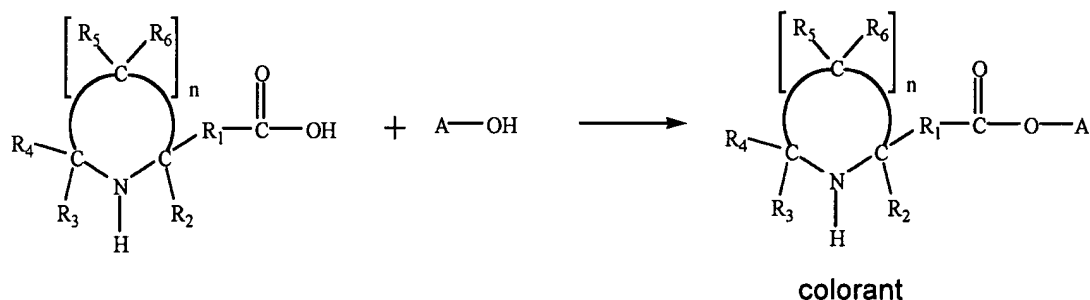
[0019] The light resistant colorant of the present invention is prepared via the formation of an amine bond, an ester bond, or an amide bond between the light resistant material of Formula 1 and an amino, a hydroxyl, or a carboxyl group of a common colorant, as represented in Schemes 1-3:

Scheme 1



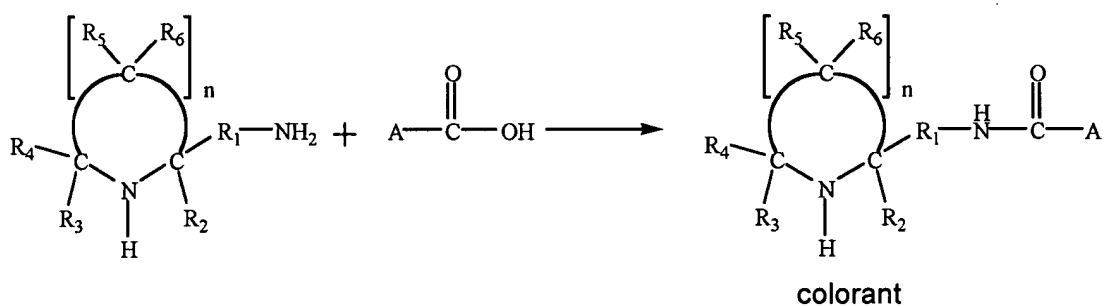
wherein, R_1 , R_2 , R_3 , R_4 , R_5 and R_6 are the same as defined above.

Scheme 2



wherein, R_1 , R_2 , R_3 , R_4 , R_5 and R_6 are the same as defined above.

Scheme 3



wherein, R_1 , R_2 , R_3 , R_4 , R_5 and R_6 are the same as defined above.

[0020] A common colorant to be coupled with the light resistant material may be any dye or pigment conventionally used in a variety of coloration industries such as in toners, inks, fibers, paints, and plastics coloration provided that an amino, a carboxyl, a hydroxyl or an amine group is present in a molecule of the dye or the pigment. Examples of the dye include, but are not limited to, C.I. Direct Black 9, 17, 19, 22, 32, 51, 56, 91, 94, 97, 166, 168, 173, and 199; C.I. Direct Blue 1, 10, 15, 22, 77, 78, 80, 200, 201, 202, 203, 207, and 211; C.I. Direct Red 2, 4, 9, 23, 31, 39, 63, 72, 83, 84, 89, 111, 173, 177, 184, and 240; and C.I. Direct Yellow 8, 9, 11, 12, 27, 28, 29, 33, 35, 39, 41, 44, 50, 53, and 58. Examples of the pigment include, but are not limited to, anthraquinone, phthalocyanine blue, phthalocyanine green, diazo, monoazo, pyranthrone, perylene, quinacridone, and an indigoid pigment. (emphasis added)

The Examiner also submitted that there is no teaching or guidance in the specification about how the instant compounds of formula (1) will impart light resistance to every known colorant irrespective of whether it is a dye, pigment or something else. It is respectfully submitted that, as illustrated in Schemes 1-3, page 5 of the specification, a light resistant material is combined with a common colorant having an amino, a carboxyl, a hydroxyl or an amine group group to form a colorant attached at the position of the amino, carboxyl, hydroxyl or amine group

position. Hence, as illustrated by the examples shown in Tables I and II (see pages 18 and 19), the colorants combined with the light resistant materials do not form precipitates over extended periods of time and retain a high degree of light resistance in accordance with the measurements of OD (after test)/OD (before test) x 100 (%). Thus, it is clear that the light resistant material imparts its light resistance characteristic to the colorants in all of the examples in accordance with the present invention. Thus, it is respectfully submitted that the experimentation results show how the instant compounds of formula (1) will impart light resistance to colorants having an amino, a carboxyl, a hydroxyl or an amine group.

The Examiner asks what about colorants which do not have amino hydroxyl, carboxyl or sulfonic acid groups? It is respectfully submitted that it is only required that the characteristics of the claimed invention be described, and that it is unnecessary to describe the characteristics of compounds that are not recited in the present claimed invention. For example, 35 U.S.C. §112 recites:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention. (emphasis added)

Hence, it is submitted to be unnecessary to discuss the colorants which do not have amino hydroxyl, carboxyl or sulfonic acid groups.

The Examiner asks if the compounds of formula (1) are well known in the art to be light resistant and asks what is the evidence that compounds of formula (1) are light resistant. Claims 1 and 9 have been cancelled without prejudice or disclaimer. Thus, the Examiner's question asking if the compounds of formula (1) are well known in the art to be light resistant is now considered to be moot.

Claim 2 has been amended to independent form.

Hence, independent claim 2 is submitted to be allowable under 35 U.S.C. §112, first paragraph. Claims 1 and 9 have been cancelled without prejudice or disclaimer. Since claims 3-8 and 10-25 depend, directly or indirectly, from amended claim 2, respectively, claims 3-8 and 10-25 are submitted to be allowable under 35 U.S.C. §112, first paragraph, for at least the reasons that amended claim 2 is submitted to be allowable under 35 U.S.C. §112, first paragraph.

REJECTION UNDER 35 U.S.C. §112, SECOND PARAGRAPH:

In the Office Action, at page 4, numbered paragraph 7, claims 1-25 were rejected under 35 U.S.C. §112, second paragraph, for the reasons set forth therein. This rejection is traversed and reconsideration is requested.

The Examiner submitted that the colorant used to couple with compounds of formula (1) and the light resistant colorant obtained are not defined and that it was not clear how the specific colorant and compounds of formula (1) are being coupled.

It is respectfully submitted that the colorants are defined as follows: A common colorant to be coupled with the light resistant material may be any dye or pigment conventionally used in a variety of coloration industries such as in toners, inks, fibers, paints, and plastics coloration provided that an amino, a carboxyl, a hydroxyl or an amine group is present in a molecule of the dye or the pigment. For specific examples, see paragraph [0020] above. Thus, it is respectfully submitted that the term "common colorant having an amino, a carboxyl, a hydroxyl or an amine group" are clearly defined in the specification since the applicants are allowed to be their own lexicographers, and are clear under 35 U.S.C. §112, second paragraph.

With respect to the coupling, it is respectfully submitted that the couplings are illustrated in Schemes 1-3 in paragraph [0019], which is set forth above for the Examiner's convenience. Those skilled in the art can immediately see how the light resistant material is coupled to the common colorant having one of the recited groups to form the light resistant colorant. Thus, it is respectfully submitted that the couplings are clearly shown and that the couplings are clear under 35 U.S.C. §112, second paragraph.

Claims 1 and 9 have been cancelled without prejudice or disclaimer. Claim 2 has been amended to independent form and is submitted to be allowable under 35 U.S.C. §112, second paragraph. Since claims 3-8 and 10-25 depend, directly or indirectly, from amended claim 2, respectively, claims 3-8 and 10-25 are submitted to be allowable under 35 U.S.C. §112, second paragraph, for at least the reasons that amended claim 2 is submitted to be allowable under 35 U.S.C. §112, second paragraph.

CLAIM OBJECTIONS

Claims 29 and 30 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

Claims 29 and 30 have been amended to depend from amended claim 2 and are now

submitted to be in allowable form.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date:

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